

MAY 20 2002

K021343  
510(k) Summary of Safety and Effectiveness

Page 1 of 2

**BEBIG brachytherapy I-125 source**

April 24, 2002

**Company Name**

BEBIG Isotopen- and Medizintechnik GmbH  
Robert Rössle Str. 10  
13125 Berlin, Germany  
phone: ++49 30 94 10 84-0

**Official Contact**

Sven Langer  
Regulatory Affairs

**Device Name**

Proprietary Name: BEBIG IsoSeeds I-125  
Common Name: Brachytherapy iodine-125 source  
Classification Name: 21 CFR 892.5730 Radionuclide Brachytherapy Source, KXX

**Predicate Devices used for Substantial Equivalence**

Device	Premarket #
UroMed Brachytherapy Iodine-103 Source	K982226

**Intended Use**

The BEBIG I-125 sources are intended for use in the treatment of cancer with radioactive sources in close proximity to or within the tumor.

**Indications for use**

The BEBIG brachytherapy I-125 sources are indicated for the treatment of selected localized tumors. These sources are commonly used to treat superficial, intra-abdominal and intrathoracic tumors. Tumors of the head, neck, lung, pancreas and prostate are commonly treated. They may be used alone, or in combination with external beam radiation.

**Description**

The BEBIG I-125 sources are cylindrical sealed sources containing iodine-125 radioactivity. The sources are 4.5 mm long and 0.8 mm in diameter. The outer capsule of the source is composed of titanium, and is sealed at each end by laser weld. The iodine-125 is deposited within a porous ceramic tube as silver iodide (AgI). A radiopaque marker is located in the center of the ceramic tube to serve as an x-ray marker. The radiopaque marker is composed of gold alloy.

I-125 has a half live of 59.46 days and decays by electron capture with emission of characteristic photons and electrons. The titanium wall of the I-125 source absorbs the electrons.

The BEBIG I-125 sources are available in a range of activity levels. They are provided non-sterile and must be sterilized before use.

The manufacturer will adhere to the following regulations and standards:

FDA Quality System Regulation 21 CFR Part 820 Good Manufacturing Practices

ISO 9001 Quality Management Systems

EN 46001 / EN ISO 13485: Medical devices quality system

ASTM Standard for Titanium: F67-95

ISO 2919 sealed radioactive sources - General requirements and classifications

ISO 9978: 1992(E) Radiation Protection-Sealed radioactive sources- Leakage test Methods

#### **Comparison to predicate device**

The BEBIG brachytherapy I-125 source is technically identical with the UroMed Brachytherapy Iodine-103 Source

#### **Summary**

In Summary, the BEBIG brachytherapy I-125 sources are substantially equivalent to a legally marketed device. Quality System Controls assure the device is substantially equivalent to the predicate device with respect to its performance, safety, and effectiveness.



MAY 20 2002

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Mr. Sven Langer  
Regulatory Affairs  
BEBIG Isotopen-und  
Medizintechnik GmbH  
Robert-Rössle-Straße 10  
D-13125 BERLIN  
GERMANY

Re: K021343  
Trade/Device Name: BEBIG brachytherapy  
I-125 sources  
Regulation Number: 21 CFR 892.5730  
Regulation Name: Radionuclide brachytherapy source  
Regulatory Class: II  
Product Code: 90 KXX  
Dated: April 24, 2002  
Received: April 29, 2002

Dear Mr. Langer:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (sections 531-542 of the Act); 21 CFR 1000-1050.

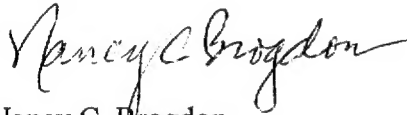
This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

8xx.1xxx	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

**510(k) Premarket Notification Indication for Use  
BEBIG brachytherapy I-125 Sources**

510(k) Number (if known): K 021343

Device Name: BEBIG brachytherapy I-125 source

**Indications for Use:**

The BEBIG brachytherapy I-125 sources are indicated for the treatment of selected localized tumors. These sources are commonly used to treat superficial, intra-abdominal and intrathoracic tumors. Tumors of the head, neck, lung, pancreas and prostate are commonly treated. They may be used alone, or in combination with external beam radiation.

Prescription Use ✓  
(Per 21 CFR 801.109)

David G. Hyman  
(Division Sign-Off)  
Division of Reproductive, Abdominal,  
and Radiological Devices  
510(k) Number K021343